

REMARKS/ARGUMENTS:

Claims 7-12 and 14-15 have been allowed by a Notice of Allowability dated October 8, 2004. The Applicant paid the issue fee on December 8, 2004, and re-submitted the inventors' oath/declaration in response to the Examiner's objection to same stated in that October Notice of Allowability. A new Notice of Allowability dated December 20, 2004 then issued with no objections stated therein. The Applicant has not yet been informed of an issue date.

A companion case to the present application is pending before the European Patent Office (EPO). The EPO issued a search report dated April 5, 2005, citing one reference to Rabe (US Pat. No. 5,212,826) as being relevant to claims 1-18 that are pending before the EPO. Claims 7-12 and 14-15 of the present US application are identical to those claims of the same number pending before the EPO. The attached IDS discloses Rabe, which is distinguished by the remarks below.

Of the allowed claims, claims 7, 14 and 15 are independent.

Rabe shows three embodiments of an adaptive DC offset compensation circuit at Figs. 6, 7 and 8. In a Rabe receiver, the DC offset compensation circuit is in series with itself (Fig. 4, circuit blocks 421 and 427). In the Rabe first operational state, all switches (507 in Fig. 6, 525 in Fig. 7, and 551 in Fig. 8, represented in Fig. 4 as 433 and 435) are closed for fast settling. In the Rabe second operational state, all switches are open for DC offset compensation. The first operational state is not seen to be a DC compensation mode.

In Rabe, the second operational state is seen to function with no RF input signal, implying a mute switch at the input of the mixer. This way, the determination of DC compensation is made very fast without the input signal, and then that compensation is applied to the signal in the second operational mode. If Rabe performs DC compensation in the first operational state (e.g., no mute switch), a peak signal value would remain in the capacitors, resulting in a very inaccurate compensation. In the present claims, the input signal is present in both first and second order low pass filter states. For example, in claim 7, the signal peak would be decreased with the second order filter, so there is no need for a mute switch.

Rabe is not seen to disclose switching between first and second order low pass filters as in each of the independent claims 7, 14 and 15.

Claim 7 of the present application recites first order and second order low pass filter LPF states, selectable by at least one switch and a capacitance. Claim 7 recites that the first order LPF includes an AC coupling capacitance and a resistance. It further recites that the first order LPF state attenuates the AC value of the input signal, and that the second order LPF state occurs when the at least one switch is closed and increases attenuation the AC value of the input signal. The AC coupling capacitance of the first order LPF and the capacitance that operates with the switch to change LPF states are not the same capacitance (see the embodiments of Fig. 7, 8 and 9), because claim 7 does not use antecedent basis between the two recited capacitances and the states are selectable by the at least one switch and a capacitance.

As above, Rabe teaches DC offset compensation circuits in series with one another, and Rabe changes between operational states by either all switches open or all switches closed. These operational states are not different order LPF states as in claim 7 that each attenuates the AC value of the input signal. Claim 7 recites that the closed switch position increases the attenuation of the AC value of the input signal, whereas closing the Rabe switches enables fast settling. Closing the Rabe switches does not appear to result in increased attenuation of the input signal. Further, any transformation between operational states of Rabe's Figures 6 and 7 embodiments is not by a switch and a capacitor, whereas claim 7 recites switching between first and second order LPF states by at least one switch and a capacitance. Figure 6 and 7 of Rabe show each capacitor as being along the signal path in either operational state, so transformation between Rabe operational states is only by switches rather than by at least one switch and a capacitance.

Claim 14 distinguishes over Rabe in a manner similar to claim 7, but claim 14 is more explicit that closing at least one switch is for switching in additional capacitance (and resistance) for the second order LPF. In claim 14, a first order LPF attenuates the AC value of the input signal, and the second order LPF increases signal attenuation. Closing the Rabe switches is described as enabling fast settling, and the Rabe closed-switch state is

not seen to increase attenuation of the input signal. Rabe's Figures 6 and 7 do not switch in additional capacitance; the capacitors lie along the signal path in both operational states.

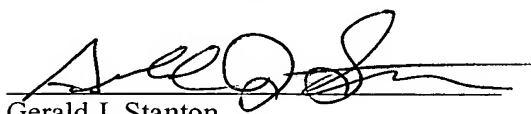
Claim 15 recites a plurality of switches and three modes of operation: an all-pass mode, and first and second DC compensation modes. The Rabe circuit enables only two operational states, and only the state in which the Rabe switches are open is seen to be a DC compensating state. Assuming arguendo that it is obvious to dispose more than two of the Rabe DC offset compensation circuits (Figs. 6, 7 or 8) in series with one another, the result still yields only two operational states because the switches of Rabe are either all open or all closed, leaving only two different states no matter how many iterations of the Rabe circuit are disposed in series.

The combination of Rabe with either or both of Myers and/or Robinson (previously cited by the Examiner in the present application) is not seen to cure any of the above shortfalls of Rabe, so claims 7, 14 and 15 are seen as non-obvious.

Further distinguishing features may be shown. The above remarks are merely to summarily show that the disclosure of Rabe does not alter the previous determination of patentability for any of claims 7-12 and 14-15.

The undersigned welcomes the opportunity to resolve any remaining matters, formal or otherwise, via teleconference at the Examiner's discretion.

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